

IN THE SPECIFICATION

Page 18, lines 10-20, please amend the paragraph as follows:

A conductive elastic layer 42a is formed on the circumference of the developing roller 42 and may be formed of urethane rubber. The elastic layer 42a should preferably have rubber hardness of 50° or below in terms of JIS (Japanese Industrial Standards) A scale. Urethane rubber forming the elastic layer ~~52a~~ 42a may, of course, be replaced with any other suitable material that is conductive and does not swell or dissolve on contacting a solvent. The elastic layer 42a may be formed on the drum 1 instead of on the developing roller 42, if desired. Further, the drum 1 may be implemented as an endless belt.

Page 38, lines 4-15, please amend the paragraph as follows:

As shown in FIG. 9, the developing unit 4 is generally made up of a developing section 41 and a sweeping section 45. The developing section 41 includes a tank 41a storing the developer 40, a developing roller or developer carrier 42, a sweep roller or removing member 43, Anilox roller 44, a pair of agitators 46a and ~~36b~~ 46b implemented as screws, and a returning portion 41b. Cleaning members 47 and 48 implemented as metal blades or rubber blades are associated with the developing roller 42 and sweep roller 43, respectively. The blades may be replaced with rollers, if desired. A doctor blade 49 is associated with the roller 44.

Page 49, line 19 through page 50, line 9, please amend the paragraph as follows:

As shown in FIG. 15, (a) , when the potential of the background is as high as ~~80~~ 800 V, the background electric field between the background and the developing roller 42 is as strong as 2.9×10^7 V/m and causes the residual toner on the developing roller 42 to cohere although not producing fog toner on the background. On the other hand, as shown in FIG.

15, (C), when the potential of the background is as low as 450 V, the background electric field is as weak as 3.6×10^6 V/m and cannot sufficiently attract the residual toner toward the developing roller 42, resulting in fog toner on the drum 1. By contrast, as shown in FIG. 15, (b), when the potential of the background is 600 V, the background electric field is 1.4×10^7 V/m that can sufficiently attract the residual toner toward the developing roller 42 while preventing the residual toner on the developing roller 42 from cohering.

Page 52, lines 4-22, please amend the paragraph as follows:

Example 3 is based on, but more specific than, Examples 1 and 2. FIG. 17 shows a relation between the background electric field and the development ratio of the background particular to Example 3-with respect to developing times of 5 milliseconds, 10 milliseconds and 20 milliseconds. More specifically, FIG. 17 shows how the above development ratio varies in accordance with the combination of two parameters having influence on the development ratio, i.e., the developing time and background electric field. As shown, for a given developing time, the development ratio increases with a decrease in electric field, reducing the cohesion of residual toner. Also, for a given electric field, the development ratio increases with a decrease in developing time, reducing the cohesion of residual toner. As FIG. 17 indicates, if the developing time is 10 millisecond (point 'a' on the chart); or less when the electric field is 1.2×10^7 V/m, the development ratio of 10 % or above is achievable as in Example 1.

Page 68, line 16 through page 69, line 1, please amend the paragraph as follows:

Further, while the feed of the developing liquid 60 to the developing roller 106 begins at the outlet side of the coating nip, the developing liquid ~~106~~ 60 deposited on the developing roller 106 is moved in the direction opposite to the direction of feed. In this configuration, if

the maximum pressure at the coating nip is higher than a preselected value, then the thickness of the thin developer layer on the developing roller 106 does not depend on the maximum pressure. Therefore, it is also possible to free the developer layer from irregular thickness ascribable to the pressure at the coating nip. A conductive, elastic layer is formed on the circumference of the developing roller 106. The developing roller 106 is rotated at the same speed as the drum 1 in contact with the drum 1, forming a development nip. A power supply, not shown, applies a bias of the same potential as the toner to the developing roller 106. As a result, a potential difference between the developing roller 106 and the drum 1 forms an electric field for development at the development nip.

Page 70, lines 4-20, please amend the paragraph as follows:

FIGS. 23A and 23B show the conditions of the developing liquid 60 at the development nip. A development bias of 400 V lower than the surface potential of 600 V of the drum 1 is applied to the developing roller 106. The bias forms a development electric field between the developing roller 106 and the image portion of the drum 1 lowered in potential to 50 V or below by the optical writing unit. Also, a background electric field is forced between the developing roller 106 and the background of the drum 1. As shown in FIG. 23A, toner 60a contained in the developer 60b moves to the drum 1 due to the above electric field and develops a latent image. As shown in FIG. 23B, in the background or non-image portion, the background electric field formed by the bias and the potential of the drum 1 attracts the toner 60a toward the developing roller 106 for thereby preventing it from remaining on the background as far as possible, leaving a floating fog toner 60c.

Page 71, line 10 through page 72, line 4, please amend the paragraph as follows:

As for the development nip, it is necessary to guarantee a developing time long enough for the toner to sufficiently move by electrophoresis; the developing time refers to a period of time over which the thin developer layer passes the development nip. The developing time is dependent on the width of the development nip and the process linear velocity, i.e., the peripheral speed of the drum 1 and developing roller 106. The illustrative embodiment guarantees the above developing time by selecting a development nip width equal to or larger than a product of the process linear velocity and a development time constant. The development time constant refers to a period of time necessary for the amount of development to saturate and is produced by dividing the process linear velocity by the minimum development nip width necessary for the saturation of the amount of development. ~~For~~ For example, if the process linear velocity is 300 mm/sec and if the development time constant is 10 milliseconds, then the development nip width is 3 mm. This is also true with a removal nip to be described later.

Page 76, lines 6-16, please amend the paragraph as follows:

FIG. 25C is a fragmentary enlarged view showing the rightmost position of the sweeping section 109 more specifically. As shown, a conductive, elastic layer 110a formed on the sweep roller 110 is noticeably deformed to form the removal nip, labeled N1, which may be 3 mm wide by way of example. This nip width N1 allows the sweep roller 110 to remove the carrier liquid from the drum ' by the largest amount and is desirable when use is made of a coated sheet. In this case, an LED 121b shown in FIG. 22B and indicative of a large nip width (NIP SIZE L) , which forms part of ~~weep~~ sweep roller ON display, is turned on.

Page 76, line 17 through page 77, line 13, please amend the paragraph as follows:

The operator of the printer can operate the control panel 117 to switch the removal nip width or to release the sweep roller 110 from the drum 1 in accordance with the kind of a sheet to be used, i.e., a sheet to be fed from a sheet cassette, not shown, or from a manual sheet tray not shown. For example, a rough sheet, a liquid-absorptive sheet, a non-coated sheet or a sheet coated little, e.g., pulp paper is used, the operator operates the control panel 117 to release the sweep roller 110 from the drum 1 because much developer must be deposited. For this purpose, the operator pushes a sweep roller ON/OFF button 119 shown in FIG. 22B once. In response, the controller 118 drives the stepping motor 116 so as to rotate the eccentric cam 113 counterclockwise by a preselected angle, while turning on sweep roller OFF display 120 shown in FIG. 22B. The eccentric cam 113 so rotated causes the sweeping section 112 to move leftward under the bias of the tension spring 114. As a result, as shown in FIG. 25A, the sweep roller 110 is released from the drum 1. In this condition, although the sweep roller 110 does not remove the excess carrier liquid from the developer layer formed on the drum 1, a high-quality image is attained.

Page 79, line 20 through page 80, line 4, please amend the paragraph as follows:

Example 2 is configured to control the amount of the carrier to be removed more accurately than Example 1 for thereby implementing optimal image transfer with various kinds of sheets. As shown in FIG. 26A, Example 2 includes a second sweeping section 122 in addition to the first sweeping section 112. As shown in FIG. 26B, the control panel 117 additionally includes a section B assigned to the second sweeping section 122 and identical in configuration with the section assigned to the first sweeping section 112.